

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A powder delivery system for a laser-based additive manufacturing process, comprising:

a hopper adapted to contain a powder and continuously feed the powder through an output of the hopper;

a metering device adjacent the output of the hopper, the metering device comprising a rotatable disk having a top surface that is substantially flat, the top surface adapted to receive the powder continuously fed through the output of the hopper, the top surface being disposed below the output of the hopper by a prescribed gap; adapted to receive the powder continuously fed through the output of the hopper; and

a powder removal device adjacent the metering device, the powder removal device operable to remove the powder from the metering device and deliver the powder to a nozzle of the laser-based additive manufacturing process; and

a control device operable to vary an amount of the powder continuously fed to the metering device, the control device further operable to vary the prescribed gap between the top surface and the output of the hopper.

2. (Canceled)

3. (Canceled)

4. (Currently Amended) The powder delivery system of Claim 1 ~~Claim 3~~, wherein the powder removal device is operable to remove the powder from the top surface.

5. (Original) The powder delivery system of Claim 4, wherein the powder removal device comprises a vacuum powder removal device operable to remove the powder from the top surface via a vacuum.

6. (Original) The powder delivery system of Claim 5, wherein the vacuum powder removal device comprises:

a chamber including a gas input orifice; and

a vacuum device disposed in the chamber, the vacuum device operable to remove the powder from the top surface by a flowing of a gas into the chamber through the gas input orifice and out of the chamber through the vacuum device.

7. (Canceled)

8. (Canceled)

9. (Currently Amended) The powder delivery system of Claim 1 ~~Claim 7~~, wherein the control device is further operable to vary a speed of rotation of the rotatable disk.

10. (Canceled)

11. (Currently Amended) A method of delivering a powder in a laser-based additive manufacturing process, comprising:

containing a powder in a hopper having an output;

continuously feeding the powder from the output to a top surface of a rotatable disk ~~metering device~~; and

removing the powder from the top surface with a vacuum ~~metering device with a~~ powder removal device.

12. (Canceled)

13. (Canceled)

14. (Currently Amended) The method of Claim 11 ~~Claim 12~~, further comprising varying an amount of the powder continuously fed to the top surface.

15. (Original) The method of Claim 14, wherein varying the amount of the powder comprises varying a gap between the top surface and the output of the hopper.

16. (Original) The method of Claim 14, wherein varying the amount of the powder comprises varying a speed of rotation of the rotatable disk.

17. (Original) The method of Claim 14, wherein varying the amount of the powder comprises varying a gap between the top surface and the output of the hopper and varying a speed of rotation of the rotatable disk.

18. (Original) A powder delivery system for a laser-based additive manufacturing process, comprising:

- a hopper adapted to contain a powder and continuously feed the powder through an output of the hopper;

- a rotatable disk having a top surface that is substantially flat, the top surface adapted to receive the powder continuously fed through the output of the hopper, the top surface being disposed below the output of the hopper by a prescribed gap; and

- a vacuum powder removal device operable to remove the powder from the top surface via a vacuum.

19. (Original) The powder delivery system of Claim 18, wherein the vacuum powder removal device comprises:

- a chamber including a gas input orifice; and

- a vacuum device disposed in the chamber, the vacuum device operable to remove the powder from the top surface by a flowing of a gas into the chamber through the gas input orifice and out of the chamber through the vacuum device.

20. (Original) The powder delivery system of Claim 18, further comprising a control device operable to vary an amount of the powder continuously fed to the metering device.

21. (Original) The powder delivery system of Claim 18, wherein the control device is further operable to vary the prescribed gap between the top surface and the output of the hopper.

22. (Original) The powder delivery system of Claim 18, wherein the control device is further operable to vary a speed of rotation of the rotatable disk.

23. (Original) The powder delivery system of Claim 18, wherein the control device is operable to vary a speed of rotation of the metering device and the prescribed gap between the metering device and the hopper.

24. (Canceled)